

CLAIM AMENDMENTS:

1-8 cancelled

9. (new) A network system, the system comprising:

an interconnecting network;
a reference network node communicating with said interconnecting network, said reference node having a reference node communication time schedule; and
a plurality of network nodes coupled to said interconnecting network, said network nodes each being adapted, before integration as an active network node, for adjustment of a local communication time schedule to a communication time schedule of at least one other network node, wherein a network node to be integrated is adapted to test activity of other network nodes and, in case of no activity, is assigned as said reference network node with fixed transmission of predetermined position messages for said other network nodes, wherein each network node is adapted to receive position messages for adjustment of its local communication time schedule to said reference node communication time schedule and, in case of a positive result of an agreement check between said local communication time schedule and communication time schedules of at least part of active network nodes, is integrated as an active network node.

10. (new) The network system of claim 9, wherein each network node is adapted for examination of whether its local communication time schedule coincides with communication time schedules of at least part of said active network nodes and for counting agreements and

deviations, wherein each network node is adapted for integration as an active network node only when a number of agreements is larger than a number of deviations.

11. (new) The network system of claim 10, wherein each network node, for examination as to whether its said local communication time schedule coincides with the communication time schedules of at least part of said active network nodes, is provided with a time interval, in which all position messages of said active network nodes can be transmitted at least once.
12. (new) The network system of claim 9, wherein, after detection of no activity, a network node to be integrated is adapted to examine whether a further network node attempts to integrate itself as said reference network node.
13. (new) The network system of claim 12, wherein, after detection of no activity, a network node to be integrated is adapted to transmit a collision message.
14. (new) The network system of claim 12, wherein during examination for integration as a reference network node, each network node is adapted to initially transmit its own position message, to count incoming position messages, and to be integrated as said reference network node only if a number of correctly received position messages is larger than a number of the incorrectly received position messages.
15. (new) A network node in a network system, the system having:

an interconnecting network;

a reference network node communicating with said interconnecting network, said reference node having a reference node communication time schedule; and
a plurality of network nodes coupled to said interconnecting network, said network nodes each being adapted, before integration as an active network node, for adjustment of a local communication time schedule to a communication time schedule of at least one other network node, wherein a network node to be integrated is adapted to test activity of other network nodes and, in case of no activity, is assigned as said reference network node for fixed transmission of predetermined position messages for other network nodes, wherein a network node is adapted for integration as an active network node after receipt of position messages for adjustment of said local communication time schedule to said reference node communication time schedule and in case of positive result of an agreement check between said local communication time schedule and communication time schedules of at least part of active network nodes.

16. (new) A method for integrating a network node as an active network node in a network system, the network system having a reference network node and an interconnecting network for connecting together a plurality of network nodes and the reference network node, the method comprising the steps of:

- a) testing activity of other network nodes;
- b) if no activity is detected in step a), transmitting position messages predetermined in a communication time schedule for other network nodes;

- c) if activity is detected in step a), adjusting a local communication time schedule to that of a reference network node based on receipt of position messages;
- d) testing for agreement between the local communication time schedule and communication time schedules of at least part of active network nodes; and
- e) integrating into the network system as an active network node if step d) yields a positive result.